



US/China Renewable Energy Forum

Karen Conover

Global Energy Concepts

5729 Lakeview Dr. NE, Suite 100

Kirkland, WA 98033 USA

Tel: 425-822-9008

Fax: 425-822-9022

kconover@globalenergyconcepts.com



World Bank/GEF China Renewable Energy Project – Windfarm Component

- *Huitingxile, Inner Mongolia – 100 MW*
- *Zhangbei, Hebei Province – 50 MW*
- *Pingtang, Fujian Province – 20 MW*
- *Chongming, Shanghai Municipality – 14 MW*
- *Nanhui, Shanghai Municipality – 6 MW*

GEC's Tasks

- *Review and Evaluation of Feasibility Studies*
- *Training on Wind Resource Assessment and Feasibility Analyses*
- *Assist with Preparation of Bidding Documents*



Why Wind Energy in China?

- *Large Market for Electricity*
- *Excellent Wind Resources*
- *Numerous Developable Sites with Access to Transmission*
- *Significant In-Country Capabilities*

Southeast China - Coastal Fujian and Eastern Guangdong Map of Favorable Wind Resource Areas



Wind Power Classification

Resource Potential	Wind Power Density at 30 m W/m^2	Wind Speed ^a at 30 m m/s
Fair	100 - 200	4.4 - 5.6
Moderate	200 - 300	5.6 - 6.4
Good	300 - 400	6.4 - 7.0
	400 - 500	7.0 - 7.5
Excellent	500 - 700	7.5 - 8.4
	700 - 1000	8.4 - 9.6
	> 1000	> 9.6

^a Wind speeds are based on a Weibull k value of 2.0 estimated for many coastal areas of SE China.

- ★ GTS Surface Meteorological Station
- GTS Upper-Air Meteorological Station
- + Additional Surface Meteorological Station
- City

50 0 50 100 150 200 Kilometers

The wind resource classification is for utility scale applications and applies to areas with low surface roughness. The Global Telecommunications System (GTS) meteorological stations are part of NREL's global database. The data for the additional meteorological stations were provided by the State Power Company of China.

US Dept. of Energy - National Renewable Energy Laboratory

NREL contacts:
Dennis Elliott (303) 384-6935
Marc Schwartz (303) 384-6936



Issues and Challenges

- ***Import and Other Taxes***
- ***Emphasis on Local Manufacturing***
- ***Power Purchase Terms and Conditions***
- ***Legal, Financial, and Contractual Uncertainties***
- ***Establishing Solid Partnerships***

